



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

4/10 3/19/02  
11

Art Unit: 1725 )  
Examiner: M. Elve )  
Applicant(s): Robert M. Clement et al. )  
Serial No.: 09/184,186 )  
Filing Date: November 2, 1998 )  
For: RELEASING OF GLAZING PANELS )

**APPEAL BRIEF**

**RECEIVED**  
MAR 15 2002  
**TC 1700**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

By Notice of Appeal filed October 9, 2001, Applicants have appealed the Final Rejection dated April 9, 2001 and submit this brief in support of that appeal.

**REAL PARTY IN INTEREST**

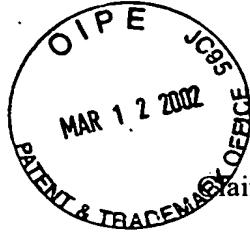
The real party in interest is the assignee, Carglass Luxembourg Sarl – Zug Branch, which received an assignment from the inventors, Clement et al.

**RELATED APPEALS AND INTERFERENCES**

There is a related appeal regarding the present application, which is U.S. Serial No. 09/346,375, filed July 1, 1999.

**CERTIFICATE OF MAILING:** (37 C.F.R. 1.8) I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the U.S. Postal Service with sufficient postage as First Class mail in an envelope addressed to Assistant Commissioner for Patents, Washington, D.C. 20231 on March 8, 2002, by

Daniel H. Bliss

STATUS OF CLAIMS

Claims 1 through 50 have been rejected.  
Claims 1 through 50 are being appealed.

**RECEIVED**  
MAR 15 2002  
**TC 1700**

STATUS OF AMENDMENTS

A Preliminary Amendment and new Declaration and Power of Attorney was filed on April 20, 2000 to claim the benefit under 35 U.S.C. § 120 of prior U.S. patent application Serial No. 09/133,854 and 08/693,060. A first Office Action was issued on July 6, 2000. The Examiner rejected claims 1 through 7 and 10 through 32 under 35 U.S.C. § 101 and claims 1 through 47 under 35 U.S.C. § 102(a). A Response was filed on January 5, 2001, adding new claims 48 through 50 and arguing the patentability of claims 1 through 47. The Response was acted upon by the Examiner and a second Office Action made Final was issued on April 9, 2001, rejecting claims 1 through 7, 10 through 32, and 48 under 35 U.S.C. § 101 and claims 1 through 50 under 35 U.S.C. § 102(a). An Amendment under 37 C.F.R. 1.116 was filed on September 10, 2001, arguing the patentability of claims 1 through 50. The Amendment under 37 C.F.R. 1.116 was acted upon by the Examiner and an Advisory Action was issued on October 11, 2001. In the Advisory Action, the Examiner indicated that the Amendment under 37 C.F.R. 1.116 and the request for reconsideration had been considered but did not place the application in a condition for allowance because the double patenting rejection still holds because the applications are drawn to the same invention and the 102(a) still holds because the publication date is 6/13/96 while applicant only has priority to 8/11/98. The Examiner has not indicated whether the Amendment under 37 C.F.R. 1.116 was entered. A Notice of Appeal was filed on October 9,

2001, appealing the rejection of claims 1 through 50. A request for a corrected filing receipt was filed on January 11, 2002, a copy of which is attached in Appendix 5.

### SUMMARY OF THE INVENTION

Applicants' invention relates to a method and apparatus for releasing a vehicular glazing panel (windscreen 16) from a supporting frame 7 to which it is bonded by an interposed, dark colored polyurethane bonding bead 8, which extends around the entire periphery of the panel 16 in contact with the frame 7. The windscreen panel 16 comprises an outer glass layer 9, an inner glass layer 10 and intermediately therebetween, an interlayer 11 comprising a tinted sheet material, which is transparent to certain wavelengths of visible light but opaque to others and also to ultra violet (U.V.) radiation.

Immediately adjacent the bonding bead 8, the periphery of the inner layer 10 of the windscreen panel 16 is provided with a bonded glass frit layer 12 which is typically dark in color (more typically black in color). The use of pulsed light operation provides repeated bursts of energy to be delivered to the frit layer 12/bonding bead 8 interface, with sufficient time between pulsed energy bursts (T off) to allow heat absorbed within the body of the glazing panel (including at interlayer 11) to be dissipated.

The apparatus 1 comprises a delivery head 4 including an electric gas discharge tube 2 containing a high pressure Noble/inert gas such as Xenon or Krypton. The discharge tube 2 operates to produce an output burst of light of a range of wavelengths in the visible spectrum (approximately in the range 400nm to 700nm). The energy delivered, per pulse is typically in the range 500-1500 Joules however the energy dissipates (attenuates) rapidly with distance from the tube.

A housing/casing 3 surrounds the discharge tube and includes shielding sidewalls 5,6 and a spanning visible light transmissible window 7. A parabolic reflector wall 8 is positioned opposite the window 7 to reflect light from the reverse side of discharge tube 2 to pass through the window 7.

The tube 2 is controlled to produce high intensity pulses according to a predetermined pulse regime by means of a control unit 29 operating to appropriate programmed instructions. The control unit 29, controls the operation of a trigger network 30 to activate a pulse forming network 31 to supply current to the tube 2 to produce a light pulse having the desired characteristics.

The pulse forming network 31 includes a capacitor bank 32 charged to a preset voltage by a power supply 33. The capacitor bank 32 remains charged until a trigger pulse from the trigger network initiates discharge in the discharge tube 2, which charge stored in capacitor bank 32 discharges through inductor 34 and a secondary trigger transformer 35, to the tube 2. The time constant of the discharge (and hence the light pulse duration and "profile") is determined by the values of the inductor 34 and the capacitor bank 32. For an operational system, a pulse duration of 1ms-2ms has been found to be suitable. For present purposes, pulse duration should be understood to be the time interval between the light power reaching half its maximum value and subsequently falling to half its maximum value.

The pulse repetition frequency (corresponding to the length of the inter-pulse interval ( $T_{off}$ )) is important to ensure that the period between successive pulses is sufficient to allow the heat absorbed in the thickness of the screen to dissipate before more energy is delivered. The control unit 29 acts to override the manual trigger to inhibit the trigger network 30 from initiating discharge until the required time period has elapsed. The pulse

repetition frequency is typically controlled to be in the range 0.3Hz-1Hz. The energy delivered per light pulse is selected according to the tint or other qualities of the glazing panel but typically varies between 500-1500 Joules per pulse.

In use, the optical delivery head is positioned as shown in Figure 3 and a manually actuatable trigger is operated to produce a single light pulse, which passes through the screen 6 and is absorbed at the frit layer 12 and/or the bonding bead 8. The frit 12 or bonding bead 8 rapidly heats up and separates from the screen typically either by glass ablation, temperature carbonization of the bead 8, or other thermal mechanisms. Typically, a single shot/pulse is sufficient to effect release over a length of screen corresponding to the length of the discharge tube 2 (typically 5-15cm) although multiple shots may be used (for example at lower power to minimize frit damage). The operator then moves on to an adjacent portion of the screen periphery before instigating a further light pulse. The procedure is repeated about the entire width of the screen to effect complete release.

It has been found that significantly improved results are achieved where the light delivered is in the visible range of the spectrum, and the light is pulsed according to a regime in which a series of discrete pulses of light are transmitted, the pulse duration ( $T_{on}$ ) being substantially in the range  $1\mu s$  to  $100ms$  (more preferably in the range  $1ms$ - $2ms$ ) and the pulse repetition frequency being substantially in the range  $0.1Hz$ - $10Hz$  (more preferably in the range  $0.3Hz$ - $1Hz$ ).

A six bar array of laser diodes 102 is provided within a housing 103 mounted in a delivery head 104 of the apparatus. The diode array comprises two banks each comprising three diodes 102; focusing optic 105 is provided to focus the beams produced by each bank of diodes 102 to form respective focused lines (approx. 25 to 30mm from optics 5)

arranged in end to end relationship.

The laser delivery head 104 is used to deliver laser radiation through the screen, being focused to line by the focusing optic 105 (as described above) in order for energy to be concentrated at the frit layer 112. Separation of the panel 106 from the frame 107 is effected as a result of energy absorption at the frit layer 112/bonding bead 108 interface resulting in rapid heating and either cleavage or degradation of the frit material 112 comprising the panel 106, or degradation of material comprising the bonding bead 108 (or degradation of a primer coat applied to the glazing panel prior to installation in contact with the bonding bead).

The delivery head 104 is carried by a motorized tracking system arranged to track the head 104 about the entire periphery of glazing panel 106 to effect complete release of the panel 106 from the frame 107. The operation of the tracking system 104 and the laser delivery by the head 104 are co-coordinated (by control means - not shown) such that the speed of tracking about the frame 107 is maintained at a predetermined rate.

### ISSUES

One issue in this Appeal is statutorily formulated in 35 U.S.C. § 101. Specifically, the issue is whether the claimed invention of claims 1 through 7, 10 through 32, and 48 is the same invention as that of claims 1 through 10, 13 through 18, 21 through 25, 30 through 34, 38 through 41, 45, and 46 of copending Application No. 09/346,375. Another issue in this Appeal is statutorily formulated in 35 U.S.C. § 102(a). Specifically, the issue is whether the claimed invention of claims 1 through 50 is disclosed and anticipated under 35 U.S.C. § 102(a) as being anticipated by WO(I) (96/17737).

### GROUPINGS OF CLAIMS

Claims 1 through 7 and 10 through 18 stand or fall together in regard to the rejection under 35 U.S.C. § 101.

Claims 19 through 32 stand or fall together in regard to the rejection under 35 U.S.C. § 101.

Claim 48 stands or falls together in regard to the rejection under 35 U.S.C. § 101.

Claims 1 through 4, 12, 19 through 23, and 32 through 37, 40 through 42, 45, and 46 stand or fall together in regard to the rejection under 35 U.S.C. § 102(a).

Claims 5 through 11 and 13 through 18 stand or fall together in regard to the rejection under 35 U.S.C. § 102(a).

Claims 24 through 31 and 38, 39, 43, and 44 stand or fall together in regard to the rejection under 35 U.S.C. § 102(a).

Claim 47 stands or falls together in regard to the rejection under 35 U.S.C. § 102(a).

Claim 48 stands or falls together in regard to the rejection under 35 U.S.C. § 102(a).

Claim 49 stands or falls together in regard to the rejection under 35 U.S.C. § 102(a).

Claim 50 stands or falls together in regard to the rejection under 35 U.S.C. § 102(a).

ARGUMENT**35 U.S.C. § 101**

As to inventions patentable, 35 U.S.C. § 101 provides that:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The test for the same invention is whether the claims being compared could be literally infringed by each other. The court noted that “[a] good test, and probably the only objective test, for ‘same invention,’ is whether one of the claims could be literally infringed without literally infringing the other. If it could be, the claims do not define identically the same invention.” In re Vogel, 422 F.2d 438, 164 U.S.P.Q. 619 (C.C.P.A.).

In the present application, claim 1 claims a method of releasing a glazing panel from a frame to which the panel is bonded by interposed bonding material. The method includes arranging light energy delivery means adjacent the glazing panel and operating the light energy delivery means to transmit light energy through the screen to effect release of the panel from the frame.

Claim 1 of copending Application No. 09/346,375 claims a method of releasing a glazing panel from a frame to which the panel is bonded by interposed bonding material. The method includes arranging light energy delivery means adjacent the glazing panel and operating the light energy delivery means to transmit light energy through the glazing panel to effect thermal release of the glazing panel from the frame.

Claim 1 of copending Application No. 09/346,375 claims that the light energy delivered effects thermal release of the panel from the frame. This limitation is not claimed in

claim 1 of the present application. Claim 1 of copending Application No. 09/346,375 would be literally infringed by thermal release of the panel from the frame as would claim 1 of the present application. Claim 1 of copending Application No. 09/346,375 would not be literally infringed by a non-thermal release mechanism. However, claim 1 of the present application would be literally infringed by a non-thermal release mechanism. As such, claim 1 of the present application would not literally infringe claim 1 of copending Application No. 09/346,375 because it lacks effecting thermal release of the panel from the frame. Based on In re Vogel, the claims of the present application could be literally infringed without literally infringing the claims of copending Application No. 09/346,375 and, therefore, the claims do not define identically the same invention. Therefore, it is respectfully submitted that claims 1 through 7 and 10 through 18 are allowable over the provisional rejection under 35 U.S.C. § 101.

In the present application, claim 19 claims an apparatus for releasing a glazing panel from a frame to which the panel is bonded by interposed bonding material. The apparatus comprising light energy delivery means arrangeable adjacent the glazing panel, and operable to transmit light energy through the screen to effect release of the panel from the frame.

Claim 21 of copending Application No. 09/346,375 claims an apparatus for releasing a glazing panel from a frame to which the panel is bonded by interposed bonding material. The apparatus includes light energy delivering means arrangeable adjacent the glazing panel, and operable to transmit light energy through the glazing panel to effect thermal release of the panel from the frame.

Claim 21 of copending Application No. 09/346,375 claims that the light energy delivered effects thermal release of the panel from the frame. This limitation is not claimed in claim 19 of the present application. Claim 21 of copending Application No. 09/346,375 would

be literally infringed by thermal release of the panel from the frame as would claim 19 of the present application. Claim 21 of copending Application No. 09/346,375 would not be literally infringed by a non-thermal release mechanism. However, claim 19 of the present application would be literally infringed by a non-thermal release mechanism. As such, claim 19 of the present application would not literally infringe claim 21 of copending Application No. 09/346,375 because it lacks effecting thermal release of the panel from the frame. Based on In re Vogel, the claims of the present application could be literally infringed without literally infringing the claims of copending Application No. 09/346,375 and, therefore, the claims do not define identically the same invention. Therefore, it is respectfully submitted that claims 19 through 32 are allowable over the provisional rejection under 35 U.S.C. § 101.

In the present application, claim 48 claims a method of releasing a glazing panel from a frame to which the glazing panel is bonded by interposed bonding material. The method includes the steps of directing at least one light output pulse from an electric gas discharge tube via an optical delivery head at a wavelength to be absorbed by either one of the bonding material or a frit layer on an inside face of the glazing panel about a periphery thereof and conforming to the frame. The method also includes the steps of moving the optical delivery head to adjacent portions of the glazing panel along a path of either one of the frit layer or the bonding material. The method further includes the steps of repeating the at least one light pulse to effect release of the glazing panel from the frame.

Claim 45 of copending Application No. 09/346,375 claims a method of releasing a glazing panel from a frame to which the glazing panel is bonded by interposed bonding material. The method includes the steps of directing at least one light output pulse from a flashlamp via an optical delivery head at a wavelength to be absorbed by either one of the bonding material or a

frit layer on an inside face of the glazing panel about a periphery thereof and conforming to the frame. The method also includes the steps of moving the optical delivery head to adjacent portions of the glazing panel along a path of either one of the frit layer or the bonding material. The method further includes the steps of repeating the at least one light pulse to effect release of the glazing panel from the frame.

Claim 45 of copending Application No. 09/346,375 claims that the light output pulse is directed from a flashlamp via an optical delivery head. This limitation is not claimed in claim 48 of the present application. Claim 45 of copending Application No. 09/346,375 would be literally infringed by directing the light output pulse from an electric gas discharge tube via an optical delivery head as would claim 48 of the present application. Claim 45 of copending Application No. 09/346,375 would not be literally infringed by an electric gas discharge tube. However, claim 48 of the present application would be literally infringed by an electric gas discharge tube. Based on In re Vogel, the claims of the present application could be literally infringed without literally infringing the claims of copending Application No. 09/346,375 and, therefore, the claims do not define identically the same invention. Therefore, it is respectfully submitted that claim 48 is allowable over the provisional rejection under 35 U.S.C. § 101.

### 35 U.S.C. § 102

As to patentability, 35 U.S.C. § 102(a) provides that a person shall be entitled to a patent unless:

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent.

A rejection grounded on anticipation under 35 U.S.C. § 102 is proper only where

the subject matter claimed is identically disclosed or described in a reference. In other words, anticipation requires the presence of a single prior art reference which discloses each and every element of the claimed invention arranged as in the claim. In re Arkley, 455 F.2d 586, 172 U.S.P.Q. 524 (C.C.P.A. 1972); Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 218 U.S.P.Q. 781 (Fed. Cir. 1983); Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 U.S.P.Q. 481 (Fed. Cir. 1984).

However, under 35 U.S.C. § 363, an international application designating the United States shall have the effect, from its international filing date under article 11 of the treaty, of a national application for patent regularly filed in the Patent Office. As such, the international application enjoys the same effect as of its international filing date as a normal domestic application filed in the United States.

35 U.S.C. § 120 provides that an application for patent for an invention disclosed in the manner provided by the first paragraph of section 112 of this title in an application previously filed in the United States, or as provided by section 363 of this title, which is filed by an inventor or inventors named in the previously filed application shall have the same effect, as to such invention, as though filed on the date of the prior application, if filed before the patenting or abandonment of or termination of proceedings on the first application or on an application similarly entitled to the benefit of the filing date of the first application and if it contains or is amended to contain a specific reference to the earlier filed application.

A rejection based on 35 U.S.C. § 102(a) can be overcome by:

\* \* \*

(E) Perfecting a claim to priority under 35 U.S.C. § 119(a) – (d);

(F) Perfecting priority under 35 U.S.C. § 119(e) or 120 by amending the

specification of the application to contain a specific reference to a prior application in accordance with 37 C.F.R. 1.78. See M.P.E.P. 706.02(b).

WO 96/17737 to Ledger et al. has a priority date of GB 9424659.2 filed on December 7, 1994 and has a PCT Application No. PCT/GB95/02847 with a filing date of December 6, 1995 in which the United States (U.S.) was a designated state. This PCT application was published on June 12, 1996. This PCT application entered the national phase in the U.S. under 35 U.S.C. § 371 as U.S. Serial No. 08/693,060 and was entitled to the filing date of the PCT application under 35 U.S.C. § 363, which was December 5, 1995. A copy of the Official Filing Receipt is attached in Appendix 1.

A continuation application was filed from U.S. Serial No. 08/693,060 and was assigned U.S. Serial No. 09/133,854, filed August 14, 1998. U.S. Serial No. 09/133,854 has the benefit under 35 U.S.C. § 120 because it was filed under 37 C.F.R. 1.53(b) before the abandonment of U.S. Serial No. 08/693,060 on August 28, 1998. A copy of the Official Filing Receipt is attached in Appendix 2.

The present application was filed on November 11, 1998 and claims priority under 35 U.S.C. § 119 to United Kingdom Application No. 9817441.0, filed August 11, 1998. A copy of the Official Filing Receipt is attached in Appendix 3. On April 20, 2000, a Preliminary Amendment and new Declaration and Power of Attorney were filed to claim the benefit of 35 U.S.C. § 120 of both prior U.S. Serial Nos. 09/133,854 and 08/693,060 with U.S. Serial No. 09/133,854 still pending. A copy of the Preliminary Amendment and Declaration and Power of Attorney are attached in Appendix 4.

In the Preliminary Amendment, Applicants amended the Specification to contain a specific reference to Serial No. 09/133,854 and Serial No. 08/693,060. The present application

and U.S. Serial Nos. 09/133,854 and 08/693,060 are owned by the same assignee. U.S. Serial No. 08/693,060, based on PCT Application No. PCT/GB95/02847 filed on December 6, 1995 under 35 U.S.C. § 371, claimed priority under 35 U.S.C. § 119 to GB 9424659.2 filed on December 7, 1994. A Request for Corrected Filing Receipt was filed on January 11, 2002 to properly reflect the chain of continuing data as evidenced in Appendix 5.

Based on the above, the present application has a priority date prior to June 12, 1996. Therefore, Applicants in the present application have perfected priority under 35 U.S.C. § 119(a) – (d) to overcome the rejection under 35 U.S.C. § 102(a) based on WO 96/17737.

WO 96/17737 is not prior art to the claimed invention of claims 1 through 4, 12, 19 through 23, and 32 through 37, 40 through 42, 45, and 46. As a result, the claims of the present application cannot be anticipated by WO 96/17737. WO 96/17737 has the same disclosure as copending application Serial No. 09/133,854, which Applicants claim the benefit under 35 U.S.C. § 120 from Serial No. 08/693,060, which is the national stage filing of WO 96/17737. The present application claims the benefit under 35 U.S.C. § 120 of Serial No. 09/133,854. The Specification of the present application was previously amended to contain a specific reference to the earlier filed applications. The present application claims and is entitled to the effective filing date of the common parent application, Serial No. 08/693,060, which is December 5, 1995. This is clearly prior to the international publication date of June 13, 1996. Applicants in the present application have perfected priority under 120 to overcome the rejection under 35 U.S.C. § 102(a) based on WO 96/17737. As such, WO 96/17737 cannot be an anticipatory reference and cannot be 102(a) prior art to claims 1 through 4, 12, 19 through 23, and 32 through 37, 40 through 42, 45, and 46 of the present application. The rejection is therefore wrong and improper. Thus, it is respectfully submitted that claims 1 through 4, 12, 19

through 23, and 32 through 37, 40 through 42, 45, and 46 are allowable over the rejection under 35 U.S.C. § 102(a).

WO 96/17737 discloses releasing of bonded screens. In order to remove a windscreen 1 from a frame 5, a laser delivery system 9 may be used. The laser delivery system 9 comprises a waveguide 10 directing laser radiation from an energy source to an applicator head 11 which is placed adjacent the peripheral edge of the windscreen 1 to direct laser radiation through the windscreen 1. Applicator head 11 includes a beam guide 12 and a slidable on/off switch. Continuous wave in laser radiation is directed from the applicator head 11 through a localized portion of the windscreen 1 to impinge upon the bonding bead 6. The laser radiation is in the visible and near infra-red region of the electromagnetic spectrum. Applicator head 11 is guided (either automatically or manually) around the entire periphery of the windscreen 1 with the laser radiation activated to ensure complete separation around the entire periphery.

In contradistinction, claims 5 through 11 and 13 through 18 claim features not found in WO 96/17737. Specifically, claim 5 claims that the light energy delivered is pulsed according to a predetermined regime. Claim 6 claims that the pulse duration (T on) is substantially in the range 1 $\mu$ s-100ms. Claim 7 claims that the pulse duration is substantially in the range 1ms-2ms. Claim 8 claims that the pulse repetition frequency is substantially in the range 0.1Hz-10Hz. Claim 9 claims that the pulse repetition frequency is substantially in the range 0.3Hz-1Hz. Claim 10 claims that the pulse duration (T on) is less than the inter-pulse interval (T off). Claim 11 claims that a single pulse of light energy delivered is of sufficient energy to effect separation of the screen from the frame along a length of the bonding material. Claim 13 claims that the light energy attenuates rapidly with distance such that at a few centimeters from the energy delivery means the light energy density is

significantly diminished from its maximum value. Claim 14 claims that at a distance substantially in the range 5cm or less from the delivery means the light energy density is 50% maximum value, or below. Claim 15 claims that the light energy is non-coherent. Claim 16 claims that the energy delivery means comprises electrical gas discharge apparatus. Claim 17 claims that operation of the gas discharge apparatus is controlled to limit either one of the pulse rate or duration of the light pulse. Claim 18 claims that the operation of the gas discharge apparatus is controlled by charging a capacitor arrangement, initiating a trigger pulse to discharge the capacitor arrangement, and discharging the capacitor arrangement through an inductor to the gas discharge apparatus.

WO 96/17737 does not disclose or anticipate the claimed invention of claims 5 through 11 and 13 through 18. WO 96/17737 merely discloses releasing of bonded screens having a laser delivery system in order to remove a windscreen from a frame in which an applicator head delivers laser radiation is in the visible and near infra-red region of the electromagnetic spectrum. While this reference mentions that the laser radiation is pulsed in claim 8 thereof, WO 96/17737 lacks the specifics of pulsing the laser radiation and the other limitations found in claims 5 through 11 and 13 through 18 of the present application. The Examiner has not specifically pointed out where in the reference these features are found. As a result, WO 96/17737 fails as anticipation of claims 5 through 11 and 13 through 18. Therefore, the rejection is therefore wrong and improper. Thus, it is respectfully submitted that claims 5 through 11 and 13 through 18 are allowable over the rejection under 35 U.S.C. § 102(a).

As to claims 24 through 31 and 38, 39, 43, and 44, these claims also claim features not found in WO 96/17737. 24. Claim 24 claims that the apparatus includes different preset settings which may be switched to alter one or more parameters of the light

energy delivered, dependent upon the tint of the glazing panel to be debonded. Claim 25 claims that the light energy parameters include at least one of light intensity, pulse duration, and pulse interval. Claim 26 claims that the energy delivery means comprises electrical gas discharge apparatus. Claim 27 claims a pulse forming network having a capacitor and inductor arrangement in which the capacitor discharges through the inductor to drive the electrical gas discharge apparatus to produce a light pulse. Claim 28 claims a trigger network for initiating the capacitor of the pulse forming network to discharge. Claim 29 claims control means for controlling one or more apparatus parameters including the minimum permissible time elapsing between subsequent discharge pulses of the electrical gas discharge apparatus. Claim 30 claims that the discharge apparatus comprises an electrical gas discharge tube. Claim 31 claims that the electrical gas discharge apparatus comprises a reflector arranged to direct emitted light in a predetermined direction. Claim 38 claims that the degree of linewidth overlap of subsequent pulses is substantially 50% or above. Claim 39 claims that the degree of linewidth overlap of subsequent pulses is substantially 80% or above. Claim 43 claims that the laser delivery means comprises a plurality of laser sources arranged in one or more arrays. Claim 44 claims that the laser delivery means comprises laser diode means.

WO 96/17737 does not disclose or anticipate the claimed invention of claims 24 through 31 and 38, 39, 43, and 44. WO 96/17737 merely discloses releasing of bonded screens having a laser delivery system in order to remove a windscreen from a frame in which an applicator head delivers laser radiation in the visible and near infra-red region of the electromagnetic spectrum. WO 96/17737 lacks the pulse forming network, diodes, and the other limitations found in claims 24 through 31 and 38, 39, 43, and 44 of the present application.

Applicants challenge the Examiner to specifically point out where in the reference these features are found. As a result, WO 96/17737 fails as anticipation of claims 24 through 31 and 38, 39, 43, and 44. Therefore, the rejection is therefore wrong and improper. Thus, it is respectfully submitted that claims 24 through 31 and 38, 39, 43, and 44 are allowable over the rejection under 35 U.S.C. § 102(a).

As to claim 47, claim 47 claims a method of releasing a windscreen panel from a frame to which the windscreen panel is bonded by interposed bonding material. The method includes the steps of directing light output from an array of laser diodes at a frit layer on an inside face of the windscreen panel about a periphery thereof and conforming to the frame. The method also includes the steps of providing the light output at a wavelength absorbed by the frit layer; and moving the light output along a path of the frit layer at a predetermined rate to carbonize the frit layer to effect release of the windscreen panel from the frame.

WO 96/17737 does not disclose or anticipate the claimed invention of claim 47. WO 96/17737 merely discloses releasing of bonded screens having a laser delivery system in order to remove a windscreen from a frame in which an applicator head delivers laser radiation is in the visible and near infra-red region of the electromagnetic spectrum. WO 96/17737 lacks the step of directing light output from an array of laser diodes at a frit layer on an inside face of the windscreen panel found in claim 47 of the present application. Applicants challenge the Examiner to specifically point out where in the reference this feature is found. As a result, WO 96/17737 fails as anticipation of claim 47. Therefore, the rejection is therefore wrong and improper. Thus, it is respectfully submitted that claim 47 is allowable over the rejection under 35 U.S.C. § 102(a).

As to claim 48, claim 48 claims a method of releasing a glazing panel from a

frame to which the glazing panel is bonded by interposed bonding material. The method includes the steps of directing at least one light output pulse from an electric gas discharge tube via an optical delivery head at a wavelength to be absorbed by either one of the bonding material or a frit layer on an inside face of the glazing panel about a periphery thereof and conforming to the frame. The method also includes the steps of moving the optical delivery head to adjacent portions of the glazing panel along a path of either one of the frit layer or the bonding material. The method further includes the steps of repeating the at least one light pulse to effect release of the glazing panel from the frame.

WO 96/17737 does not disclose or anticipate the claimed invention of claim 48. WO 96/17737 merely discloses releasing of bonded screens having a laser delivery system in order to remove a windscreen from a frame in which an applicator head delivers laser radiation is in the visible and near infra-red region of the electromagnetic spectrum. WO 96/17737 lacks the use of at least one electric gas discharge tube to produce the light subsequently directed to the bonding material or frit layer found in claim 48 of the present application. Applicants challenge the Examiner to specifically point out where in the reference this feature is found. As a result, WO 96/17737 fails as anticipation of claim 48. Therefore, the rejection is therefore wrong and improper. Thus, it is respectfully submitted that claim 48 is allowable over the rejection under 35 U.S.C. § 102(a).

As to claim 49, claim 49 claims a glazing panel releaser for releasing a glazing panel from a frame to which the glazing panel is bonded by interposed bonding material. The glazing panel releaser includes an optical delivery head to direct light at either one of the bonding material or a frit layer on an inside face of the glazing panel about a periphery thereof and conforming to the frame. The glazing panel releaser also includes at least one electric gas

discharge tube operable to produce the light directed by the optical delivery head in the form of at least one light pulse at a wavelength to be absorbed by either one of the frit layer or the bonding material to effect release of the glazing panel from the frame.

WO 96/17737 does not disclose or anticipate the claimed invention of claim 49. WO 96/17737 merely discloses releasing of bonded screens having a laser delivery system in order to remove a windscreen from a frame in which an applicator head delivers laser radiation is in the visible and near infra-red region of the electromagnetic spectrum. WO 96/17737 lacks the use of at least one electric gas discharge tube to produce the light subsequently directed to the bonding material or frit layer found in claim 49 of the present application. This is clearly not disclosed in WO 96/17737. The Specification of the present application makes clear the benefit of using an electric gas discharge tube for producing the light. A primary benefit is that light energy attenuates rapidly with distance from the apparatus. This has user benefits not present with laser apparatus. Laser apparatus is the only light delivery apparatus disclosed in WO 96/17737. Applicants challenge the Examiner to specifically point out where in the reference this feature is found. As a result, WO 96/17737 fails as anticipation of claim 49. Therefore, the rejection is therefore wrong and improper. Thus, it is respectfully submitted that claim 49 is allowable over the rejection under 35 U.S.C. § 102(a).

As to claim 50, claim 50 claims an apparatus for releasing a glazing panel from a frame to which the glazing panel is bonded by interposed bonding material. The apparatus includes an optical delivery head to direct light at either one of the bonding material or a frit layer on an inside face of the glazing panel about a periphery thereof and conforming to the frame. The apparatus also includes an array of laser diodes operable to produce the light directed by the optical delivery head in the form of at least one light pulse at a wavelength to be absorbed by

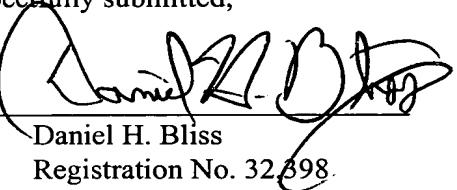
either one of the frit layer or the bonding material to effect release of the glazing panel from the frame.

WO 96/17737 does not disclose or anticipate the claimed invention of claim 50. WO 96/17737 merely discloses releasing of bonded screens having a laser delivery system in order to remove a windscreen from a frame in which an applicator head delivers laser radiation is in the visible and near infra-red region of the electromagnetic spectrum. WO 96/17737 lacks an array of laser diodes operable to produce the light directed by the optical delivery head in the form of at least one light pulse found in claim 50 of the present application. Applicants challenge the Examiner to specifically point out where in the reference this feature is found. As a result, WO 96/17737 fails as anticipation of claim 50. Therefore, the rejection is therefore wrong and improper. Thus, it is respectfully submitted that claim 50 is allowable over the rejection under 35 U.S.C. § 102(a).

In conclusion, it is respectfully submitted that the rejection of claims 1 through 50 is improper and should be reversed.

Respectfully submitted,

By:

  
Daniel H. Bliss  
Registration No. 32,898

BLISS McGLYNN & NOLAN, P.C.  
2075 West Big Beaver Road  
Suite 600  
Troy, Michigan 48084-3443  
(248) 649-6090

Dated: March 8, 2001

Attorney Docket No.: 2170.00013

APPENDIX

The claims on appeal are as follows:

1. A method of releasing a glazing panel from a frame to which the panel is bonded by interposed bonding material, the method comprising:
  - i) arranging light energy delivery means adjacent the glazing panel; and,
  - ii) operating the light energy delivery means to transmit light energy through the screen to effect release of the panel from the frame.
2. A method according to claim 1, wherein the light energy delivered is of a wavelength substantially in the range 300nm-1500nm.
3. A method according to claim 2, wherein the light energy delivered is of a wavelength substantially in the range 400nm-700nm.
4. A method according to claim 1, wherein the light energy delivered comprises a plurality of wavelengths.
5. A method according to claim 1, wherein the light energy delivered is pulsed according to a predetermined regime.
6. A method according to claim 5, wherein the pulse duration ( $T_{on}$ ) is

substantially in the range 1μs-100ms.

7. A method according to claim 6, wherein the pulse duration is substantially in the range 1ms-2ms.

8. A method according to claim 1, wherein the pulse repetition frequency is substantially in the range 0.1Hz-10Hz.

9. A method according to claim 1, wherein the pulse repetition frequency is substantially in the range 0.3Hz-1Hz.

10. A method according to claim 1, wherein the pulse duration (T on) is less than the inter-pulse interval (T off).

11. A method according to claim 5, wherein a single pulse of light energy delivered is of sufficient energy to effect separation of the screen from the frame along a length of the bonding material.

12. A method according to claim 1, wherein the light energy delivery means is hand held and positionable relative to the glazing manually by an operator.

13. A method according to claim 1, wherein the light energy attenuates rapidly with distance such that at a few centimeters from the energy delivery means the light

energy density is significantly diminished from its maximum value.

14. A method according to claim 13, wherein at a distance substantially in the range 5cm or less from the delivery means the light energy density is 50% maximum value, or below.

15. A method according to claim 1, wherein the light energy is non-coherent.

16. A method according to claim 1, wherein the energy delivery means comprises electrical gas discharge apparatus.

17. A method according to claim 16, wherein operation of the gas discharge apparatus is controlled to limit either one of the pulse rate or duration of the light pulse.

18. A method according to claim 17, wherein the operation of the gas discharge apparatus is controlled by:

- i) charging a capacitor arrangement;
- ii) initiating a trigger pulse to discharge the capacitor arrangement; and,
- iii) discharging the capacitor arrangement through an inductor to the gas discharge apparatus.

19. Apparatus for releasing a glazing panel from a frame to which the panel is bonded by interposed bonding material, the apparatus comprising light energy delivery means

arrangeable adjacent the glazing panel, and operable to transmit light energy through the screen to effect release of the panel from the frame.

20. Apparatus according to claim 19, which is controllable to pulse the light energy delivered.

21. Apparatus according to claim 20, wherein the apparatus is controllable to either one of adjust or limit at least one of:

- the pulse repetition rate of the light delivered;
- the pulse duration of the light delivered; and
- the light intensity delivered.

22. Apparatus according to claim 19, wherein the light energy delivery means includes a manual trigger for initiating a light pulse when the delivery head is positioned to the operators satisfaction.

23. Apparatus according to claim 19, wherein means is provided for selectively adjusting the intensity of the light delivered.

24. Apparatus according to claim 19, wherein the apparatus includes different preset settings which may be switched to alter one or more parameters of the light energy delivered, dependent upon the tint of the glazing panel to be debonded.

25. Apparatus according to claim 24, wherein the light energy parameters include at least one of:

- light intensity;
- pulse duration; and
- pulse interval.

26. Apparatus according to claim 19, wherein the energy delivery means comprises electrical gas discharge apparatus.

27. Apparatus according to claim 25, including a pulse forming network having a capacitor and inductor arrangement in which the capacitor discharges through the inductor to drive the electrical gas discharge apparatus to produce a light pulse.

28. Apparatus according to claim 27, including a trigger network for initiating the capacitor of the pulse forming network to discharge.

29. Apparatus according to claim 26, including control means for controlling one or more apparatus parameters including the minimum permissible time elapsing between subsequent discharge pulses of the electrical gas discharge apparatus.

30. Apparatus according to claim 26, wherein the discharge apparatus comprises an electrical gas discharge tube.

31. Apparatus according to claim 26, wherein the electrical gas discharge apparatus comprises a reflector arranged to direct emitted light in a predetermined direction.

32. Apparatus according to claim 19, wherein the apparatus comprises a window through which emitted light is directed to pass through the glazing panel.

33. A method according to claim 1, wherein the energy delivery means comprises laser energy delivery means operated to transmit laser radiation through the panel to effect release of the glazing panel from the frame, the laser being operated in quasi continuous wave mode in which a series of discrete pulses of radiation are transmitted.

34. A method according to claim 33, wherein the laser radiation is focused to a line at the interface between the bonding material and the panel.

35. A method according to claim 34, wherein the focused line has a line width substantially in the range 200-800 $\mu\text{m}$ .

36. A method according to claim 34, wherein the focused line has a line width substantially in the range 600 $\mu\text{m} \pm 20\%$ .

37. A method according to claim 33, wherein the laser delivery means is tracked about the panel at a pre-determined rate, the tracking and quasi-continuous wave pulsed operation of the laser delivery means being coordinated such that the focused line

moves in the direction of its width at a rate such that subsequent pulses of the focused line overlap.

38. A method according to claim 37, wherein the degree of linewidth overlap of subsequent pulses is substantially 50% or above.

39. A method according to claim 37, wherein the degree of linewidth overlap of subsequent pulses is substantially 80% or above.

40. A method according to claim 33, wherein the laser energy delivery means is hand held and positionable relative to the glazing manually by an operator.

41. A method according to claim 33, wherein the wavelength of the laser energy is substantially in the range 650-1000nm.

42. A method according to claim 33, wherein the wavelength of the laser energy is substantially in the range 650-750nm.

43. Apparatus according to claim 33, wherein the laser delivery means comprises a plurality of laser sources arranged in one or more arrays.

44. Apparatus according to claim 33, wherein the laser delivery means comprises laser diode means.

45. At least one of a method and apparatus according to any preceding claim for use in releasing a vehicular glazing panel from a supporting frame.

46. A method of releasing a windscreens panel from a frame to which the windscreens panel is bonded by interposed bonding material, the method comprising the steps of:

directing light output from a laser source at a frit layer on an inside face of the windscreens panel about a periphery thereof and conforming to the frame;

providing the light output at a wavelength absorbed by the frit layer; and

moving the light output along a path of the frit layer at a predetermined rate to carbonize the frit layer to effect release of the windscreens panel from the frame.

47. A method of releasing a windscreens panel from a frame to which the windscreens panel is bonded by interposed bonding material, the method comprising the steps of:

directing light output from an array of laser diodes at a frit layer on an inside face of the windscreens panel about a periphery thereof and conforming to the frame;

providing the light output at a wavelength absorbed by the frit layer; and

moving the light output along a path of the frit layer at a predetermined rate to carbonize the frit layer to effect release of the windscreens panel from the frame.

48. A method of releasing a glazing panel from a frame to which the glazing panel is bonded by interposed bonding material, the method comprising the steps of:

directing at least one light output pulse from an electric gas discharge tube via an

optical delivery head at a wavelength to be absorbed by either one of the bonding material or a frit layer on an inside face of the glazing panel about a periphery thereof and conforming to the frame;

moving the optical delivery head to adjacent portions of the glazing panel along a path of either one of the frit layer or the bonding material; and

repeating the at least one light pulse to effect release of the glazing panel from the frame.

49. A glazing panel releaser for releasing a glazing panel from a frame to which the glazing panel is bonded by interposed bonding material, said glazing panel releaser comprising:

an optical delivery head to direct light at either one of the bonding material or a frit layer on an inside face of the glazing panel about a periphery thereof and conforming to the frame; and

at least one electric gas discharge tube operable to produce the light directed by said optical delivery head in the form of at least one light pulse at a wavelength to be absorbed by either one of the frit layer or the bonding material to effect release of the glazing panel from the frame.

50. An apparatus for releasing a glazing panel from a frame to which the glazing panel is bonded by interposed bonding material, the apparatus comprising:

an optical delivery head to direct light at either one of the bonding material or a frit layer on an inside face of the glazing panel about a periphery thereof and conforming to the

frame; and

an array of laser diodes operable to produce the light directed by said optical delivery head in the form of at least one light pulse at a wavelength to be absorbed by either one of the frit layer or the bonding material to effect release of the glazing panel from the frame.

FILING RECEIPT



UNITED STATES GOVERNMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTORNEY DOCKET NO.	DRWGS	TOT CL	IND CL
08/693,060	08/13/96	1301	\$880.00	2170-00005	.1	- 20	2

RECEIVED

DANIEL H BLISS  
BLISS McGLYNN  
2075 WEST BIG BEAVER ROAD  
SUITE 600  
TROY MI 48084

JAN 06 1997

BLISS McGLYNN, P.C.

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Application Processing Division's Customer Correction Branch within 10 days of receipt. Please provide a copy of the Filing Receipt with the changes noted thereon.

Applicant(s)

NEVILLE R. LEDGER, MORRISTON, UNITED KINGDOM;  
CHRISTOPHER DAVIES, DYFED, UNITED KINGDOM; ROBERT M.  
CLEMENT, PONTARDawe, UNITED KINGDOM.

CONTINUING DATA AS CLAIMED BY APPLICANT—  
THIS APPLN IS A 371 OF PCT/GB95/02847 12/06/95

FOREIGN/PCT APPLICATIONS-UNITED KINGDOM

9424659.2

12/07/94

TITLE  
RELEASING OF BONDED SCREENS

PRELIMINARY CLASS: 156

FILING RECEIPT



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTORNEY DOCKET NO.	DRWGS	TOT CL	IND CL
09/133,854	08/14/98	1734	\$790.00	2170.00010	1	17	3

DANIEL H BLISS  
BLISS MCGLYNN  
2075 WEST BIG BEAVER ROAD  
SUITE 600  
TROY MI 48084

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Application Processing Division's Customer Correction Branch within 10 days of receipt. Please provide a copy of the Filing Receipt with the changes noted thereon.

## Applicant(s)

NEVILLE RICHARD LEDGER, MORRISTON, UNITED KINGDOM;  
CHRISTOPHER DAVIES, LLANELLI, UNITED KINGDOM; ROBERT MARC CLEMENT, PONTARDawe, UNITED KINGDOM.

## CONTINUING DATA AS CLAIMED BY APPLICANT-

THIS APPLN IS A CON OF 08/693,060 08/13/96

FOREIGN APPLICATIONS-	UNITED KINGDOM	9424659.2	12/07/94
	UNITED KINGDOM	PCT/GB95/02847	12/06/95

TITLE  
RELEASING OF BONDED SCREENS  
PRELIMINARY CLASS: 156

RECEIVED

MAR 15 2002

TC 1700

RECEIVED

SEP 08 1998

BLISS MCGLYNN, D.

FILING RECEIPT  
CORRECTED



UNITED STATES GOVERNMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTORNEY DOCKET NO.	DRWGS	TOT CL	IND CL
09/184,186	11/02/98	3726	\$2,686.00	2170.00013	5	45	2

DANIEL BLISS  
BLISS MCGLYNN  
2075 W BIG BEAVER ROAD SUITE 600  
TROY MI 48084

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Application Processing Division's Customer Correction Branch within 10 days of receipt. Please provide a copy of the Filing Receipt with the changes noted thereon.

Applicant(s)

ROBERT MARC CLEMENT, PONTARDAWE, UNITED KINGDOM;  
CHRISTOPHER DAVIES, LLANELLI, UNITED KINGDOM; MICHAEL  
KIERNAN, SWANSEA, UNITED KINGDOM.

FOREIGN APPLICATIONS-                   UNITED KINGDOM                   9817441.0                   08/11/98

TITLE  
RELEASING OF GLAZING PANELS

PRELIMINARY CLASS: 029

RECEIVED

MAR 15 2002

TC 1700

## CERTIFICATE OF MAILING BY "EXPRESS MAIL" (37 CFR 1.10)

Applicant(s): Robert Marc Clement et al.

Docket No.

2170.00013

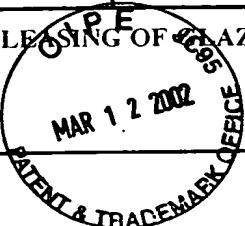
Serial No.  
09/184,186Filing Date  
November 2, 1998

Examiner

Group Art Unit  
3726

Invention: RELEASING OF GLAZING PANELS

EL316481864US



I hereby certify that this Amend. Trans.(in dup.)/Prel. Amend./Dec.& Pwr/Check for \$114.00/return postcard.  
(Identify type of correspondence)

is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under  
 37 CFR 1.10 in an envelope addressed to: The Assistant Commissioner for Patents, Washington, D.C. 20231 on  
April 20, 2000

(Date)

Daniel H. Bliss

(Typed or Printed Name of Person Mailing Correspondence)

(Signature of Person Mailing Correspondence)

EL316481864US

("Express Mail" Mailing Label Number)

Note: Each paper must have its own certificate of mailing.

RECEIVED  
 MAR 15 2002  
 TC 1700

## AMENDMENT TRANSMITTAL LETTER (Large Entity)

Applicant(s): Robert Marc Clement et al.

Docket No.

2170.00013

Serial No.  
09/184,186Filing Date  
November 2, 1998

Examiner

Group Art Unit  
3726

Invention: RELEASING OF GLAZING PANELS

TO THE ASSISTANT COMMISSIONER FOR PATENTS:

Transmitted herewith is an amendment in the above-identified application.

The fee has been calculated and is transmitted as shown below.

## CLAIMS AS AMENDED

	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST # PREV. PAID FOR	NUMBER EXTRA CLAIMS PRESENT	RATE	ADDITIONAL FEE
TOTAL CLAIMS	47 -	45 =	2	x \$18.00	\$36.00
INDEP. CLAIMS	4 -	3 =	1	x \$78.00	\$78.00
Multiple Dependent Claims (check if applicable) <input type="checkbox"/>					\$0.00
TOTAL ADDITIONAL FEE FOR THIS AMENDMENT					\$114.00

- No additional fee is required for amendment.
- Please charge Deposit Account No. in the amount of  
A duplicate copy of this sheet is enclosed.
- A check in the amount of \$114.00 to cover the filing fee is enclosed.
- The Commissioner is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. 02-2712  
A duplicate copy of this sheet is enclosed.
- Any additional filing fees required under 37 C.F.R. 1.16.
- Any patent application processing fees under 37 CFR 1.17.



Signature

Dated: April 20, 2000

Daniel H. Bliss (Reg. No. 32,398)  
 Bliss McGlynn, P.C.  
 2075 West Big Beaver Road, Suite 600  
 Troy, Michigan 48084  
 (248) 649-6090

I certify that this document and fee is being deposited on with the U.S. Postal Service as first class mail under 37 C.F.R. 1.8 and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

Signature of Person Mailing Correspondence

Typed or Printed Name of Person Mailing Correspondence

CC:

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Group Art Unit: 3726 )  
Examiner: )  
Applicant: Robert Marc Clement et al. ) PRELIMINARY  
Serial No.: 09/184,186 ) AMENDMENT  
Filing Date: November 2, 1998 )  
For: RELEASING OF GLAZING PANELS )

---

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Prior to examination, please amend the above-identified application as follows:

**IN THE SPECIFICATION:**

On page 1, before line 1, insert -- The present application is a Continuation-In-Part of United States patent application Serial No. 09/133,854, filed August 14, 1998, which is a continuation of United States patent application Serial No. 08/693,060, filed August 13, 1996. --.

**IN THE CLAIMS:**

Please add new claims 46 and 47 as follows:

46. (NEW) A method of releasing a windscreens panel from a frame to which the windscreens panel is bonded by interposed bonding material, the method comprising the steps of:

directing light output from a laser source at a frit layer on an inside face of the windscreens panel about a periphery thereof and conforming to the frame; providing the light output at a wavelength absorbed by the frit layer; and

moving the light output along a path of the frit layer at a predetermined rate to carbonize the frit layer to effect release of the windscreens panel from the frame.

47. (NEW) A method of releasing a windscreens panel from a frame to which the windscreens panel is bonded by interposed bonding material, the method comprising the steps of:

directing light output from an array of laser diodes at a frit layer on an inside face of the windscreens panel about a periphery thereof and conforming to the frame;

providing the light output at a wavelength absorbed by the frit layer; and

moving the light output along a path of the frit layer at a predetermined rate to carbonize the frit layer to effect release of the windscreens panel from the frame.

#### REMARKS

New claims 46 and 47 have been added. Claims 1 through 47 remain in the application.

Attached to this Preliminary Amendment is a new Declaration and Power of Attorney claiming the benefit of 35 U.S.C. § 120 of prior U.S. patent application Serial No. 09/133,854 and 08/693,060. Applicants have amended the Specification to contain a specific reference to Serial No. 09/133,854, which is still pending and Serial No. 08/693,060.

Applicants have added new claims 46 and 47 to claim additional subject matter to which Applicants are entitled. Applicants look forward to early consideration of the pending claims.

Respectfully submitted,

By   
Daniel H. Bliss  
Reg. No. 32,398

BLISS McGLYNN, P.C.  
2075 West Big Beaver Road, Suite 600  
Troy, Michigan 48084  
(248) 649-6090

Date: April 20, 2000

Docket: 2170.00013

Docket No.

2170.00013

# Declaration and Power of Attorney For Patent Application

## English Language Declaration

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled  
**RELEASING OF GLAZING PANELS**

the specification of which

(check one)

is attached hereto.

was filed on November 2, 1998 as United States Application No. or PCT International Application Number 09/184,186 and was amended on \_\_\_\_\_ (if applicable)

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119(a)-(d) or Section 365(b) of any foreign application(s) for patent or inventor's certificate, or Section 365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate or PCT International application having a filing date before that of the application on which priority is claimed.

### Prior Foreign Application(s)

Priority Not Claimed

9817441.0 (Number)	United Kingdom (Country)	11/August/1998 (Day/Month/Year Filed)	<input type="checkbox"/>
9424659.2 (Number)	United Kingdom (Country)	7/December/1994 (Day/Month/Year Filed)	<input type="checkbox"/>
GB95/02847 (Number)	PCT (Country)	6/December 1995 (Day/Month/Year Filed)	<input type="checkbox"/>

I hereby claim the benefit under 35 U.S.C. Section 119(c) of any United States provisional application(s) listed below:

(Application Serial No.) (Filing Date)

(Application Serial No.) (Filing Date)

(Application Serial No.) (Filing Date)

I hereby claim the benefit under 35 U.S.C. Section 120 of any United States application(s), or Section 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. Section 112, I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, C.F.R., Section 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application:

<u>09/133,854</u> (Application Serial No.)	<u>August 14, 1998</u> (Filing Date)	<u>Pending</u> (Status) (patented, pending, abandoned)
<u>08/693,060</u> (Application Serial No.)	<u>August 13, 1996</u> (Filing Date)	<u>Abandoned</u> (Status) (patented, pending, abandoned)
 (Application Serial No.)	 (Filing Date)	 (Status) (patented, pending, abandoned)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

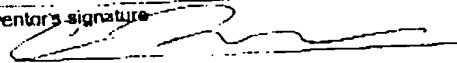
**POWER OF ATTORNEY:** As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (list name and registration number)

Daniel H. Bliss 32,398  
 Gerald E. McGlynn, III 33,737  
 Joseph G. Burgess 33,362

**Send Correspondence to:** Daniel H. Bliss  
 Bliss McGlynn, P.C.  
 2075 West Big Beaver Road, Suite 600  
 Troy, MI 48084

**Direct Telephone Calls to:** (name and telephone number)  
Daniel H. Bliss (248) 649-6090

Full name of sole or first inventor <b>Robert Marc Clement</b>	Date
Sole or first inventor's signature 	No. 4.00
Residence <b>Pontardawe, United Kingdom</b>	
Citizenship <b>British</b>	
Post Office Address <b>11 Plas Road, Rhos, Pontardawe, Swansea, SA8 3HD</b>	
United Kingdom	

Full name of second inventor, if any <b>Christopher Davies</b>	Date
Second inventor's signature 	
Residence <b>Kidwelly, United Kingdom</b>	
Citizenship <b>British</b>	
Post Office Address <b>Ty Coch Farm, Pembrey Road, Kidwelly, Carmarthenshire SA17 4NP</b>	
United Kingdom	

Full name of third inventor, if any

Michael Noel Kiernan

Date

20/4/00

Third Inventor's signature

Residence

Swansea, United Kingdom

Citizenship

British

Post Office Address

11 Roman Court, Blackpill, Swansea SA3 5BL

United Kingdom

Full name of fourth inventor, if any

Fourth Inventor's signature

Date

Residence

Citizenship

Post Office Address

Full name of fifth inventor, if any

Fifth Inventor's signature

Date

Residence

Citizenship

Post Office Address

Full name of sixth inventor, if any

Sixth Inventor's signature

Date

Residence

Citizenship

Post Office Address

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

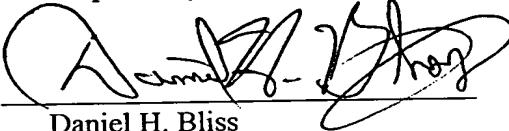
Group Art Unit: 1725 )  
Examiner: M. Elve )  
Applicant: Robert Marc Clement et al. ) **REQUEST FOR**  
Serial No.: 09/184,186 ) **CORRECTED**  
Filed: November 2, 1998 ) **FILING RECEIPT**  
For: RELEASING OF GLAZING PANELS )

Assistant Commissioner of Patents  
Office of Initial Patent Examination  
Customer Service Center  
Washington, D.C. 20231

Sir:

The Official Filing Receipt for the above-identified patent application does not indicate the continuation data, it should read -- CONTINUATION-IN-PART OF UNITED STATES PATENT APPLICATION SERIAL NO. 09/133,854, FILED AUGUST 14, 1998, WHICH IS A CONTINUATION OF UNITED STATES PATENT APPLICATION SERIAL NO. 08/693,060, FILED AUGUST 13, 1996, WHICH APPLICATION IS A 371 OF PCT/GB95/02847, FILED DECEMBER 6, 1995. -- Enclosed is a copy of the Declaration and Power of Attorney as filed on April 20, 2000. Please correct the filing receipt and forward to us a corrected copy of the Official Filing Receipt so that our file will contain the appropriate information relating to this application. A copy of the Official Filing Receipt is enclosed with the correction noted.

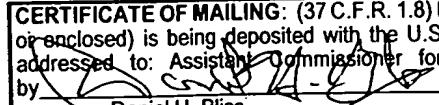
Respectfully submitted,

By:   
Daniel H. Bliss  
Reg. No. 32,398

BLISS McGLYNN & NOLAN, P.C.  
2075 West Big Beaver Road , Suite 600  
Troy, Michigan 48084  
(248) 649-6090

Date: January 11, 2002

Attorney Docket: 2170.00013

**CERTIFICATE OF MAILING:** (37 C.F.R. 1.8) I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the U.S. Postal Service with sufficient postage as First Class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on January 11, 2002, by 

Daniel H. Bliss

FILING RECEIPT

CORRECTED



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTORNEY DOCKET NO.	DRWGS	TOT CL	IND CL
09/184,186	11/02/98	3726	\$2,686.00	2170.00013	5	45	2

DANIEL BLISS  
BLISS MCGLYNN  
2075 W BIG BEAVER ROAD SUITE 600  
TROY MI 48084

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Application Processing Division's Customer Correction Branch within 10 days of receipt. Please provide a copy of the Filing Receipt with the changes noted thereon.

## Applicant(s)

ROBERT MARC CLEMENT, PONTARDAWE, UNITED KINGDOM;  
CHRISTOPHER DAVIES, LLANELLI, UNITED KINGDOM; MICHAEL KIERNAN, SWANSEA, UNITED KINGDOM.

FOREIGN APPLICATIONS— UNITED KINGDOM 9817441.0 08/11/98

TITLE  
RELEASING OF GLAZING PANELS

PRELIMINARY CLASS: 029

CONTINUATION DATA— CONTINUATION-IN-PART OF UNITED STATES PATENT APPLICATION SERIAL NO. 09/133,854, FILED AUGUST 14, 1998, WHICH IS A CONTINUATION OF UNITED STATES PATENT APPLICATION SERIAL NO. 08/693,060, FILED AUGUST 13, 1996, WHICH APPLICATION IS A 371 OF PCT/GB95/02847, FILED DECEMBER 6, 1995.

DATA ENTRY BY: DURHAM, DESHAWN

TEAM: 05 DATE: 02/23/99

(see reverse)

Docket No.  
2170.00013

# Declaration and Power of Attorney For Patent Application

## English Language Declaration

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled  
**RELEASING OF GLAZING PANELS**

the specification of which

(check one)

is attached hereto.

was filed on November 2, 1998 as United States Application No. or PCT International Application Number 09/184,186 and was amended on \_\_\_\_\_

(if applicable)

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119(a)-(d) or Section 365(b) of any foreign application(s) for patent or inventor's certificate, or Section 365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate or PCT International application having a filing date before that of the application on which priority is claimed.

### Prior Foreign Application(s)

### Priority Not Claimed

9817441.0

(Number)

9424659.2

(Number)

GB95/02847

(Number)

United Kingdom

(Country)

United Kingdom

(Country)

PCT

(Country)

11/August/1998

(Day/Month/Year Filed)

7/December/1994

(Day/Month/Year Filed)

6/December 1995

(Day/Month/Year Filed)

I hereby claim the benefit under 35 U.S.C. Section 119(c) of any United States provisional application(s) listed below:

(Application Serial No.)

(Filing Date)

(Application Serial No.)

(Filing Date)

(Application Serial No.)

(Filing Date)

I hereby claim the benefit under 35 U. S. C. Section 120 of any United States application(s), or Section 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. Section 112, I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, C. F. R., Section 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application:

09/133,854

August 14, 1998

Pending

(Application Serial No.)

(Filing Date)

(Status)

(patented, pending, abandoned)

08/693,068

August 13, 1996

Abandoned

(Application Serial No.)

(Filing Date)

(Status)

(patented, pending, abandoned)

(Application Serial No.)

(Filing Date)

(Status)

(patented, pending, abandoned)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

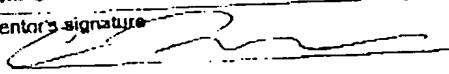
**POWER OF ATTORNEY:** As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (list name and registration number)

Daniel H. Bliss 32,398  
 Gerald E. McGlynn, III 33,737  
 Joseph G. Burgess 33,362

Send Correspondence to: Daniel H. Bliss  
 Bliss McGlynn, P.C.  
 2075 West Big Beaver Road, Suite 600  
 Troy, MI 48084

Direct Telephone Calls to: (name and telephone number)  
 Daniel H. Bliss (248) 649-6090

Full name of sole or first inventor <u>Robert Marc Clement</u>	Date <u>NOV 4 00</u>
Sole or first inventor's signature 	
Residence <u>Pontardawe, United Kingdom</u>	
Citizenship <u>British</u>	
Post Office Address <u>11 Plas Road, Rhos, Pontardawe, Swansea, SA8 3RD</u>	
United Kingdom	

Full name of second inventor, if any <u>Christopher Davies</u>	Date
Second inventor's signature 	
Residence <u>Kidwelly, United Kingdom</u>	
Citizenship <u>British</u>	
Post Office Address <u>Ty Coch Farm, Penbry Road, Kidwelly, Carmarthenshire SA17 4TF</u>	
United Kingdom	

Full name of third inventor, if any

Michael Noel Kierman

Third Inventor's signature

Date

20/4/00

Residence

Swansea, United Kingdom

Citizenship

British

Post Office Address

11 Roman Court, Blackpill, Swansea SA3 5BL

United Kingdom

Full name of fourth inventor, if any

Fourth Inventor's signature

Date

Residence

Citizenship

Post Office Address

Full name of fifth inventor, if any

Fifth Inventor's signature

Date

Residence

Citizenship

Post Office Address

Full name of sixth inventor, if any

Sixth Inventor's signature

Date

Residence

Citizenship

Post Office Address

Please date stamp and return this postcard acknowledging receipt  
of the following:  
Request for Corrected Filing Receipt and copy of Official Filing  
Receipt with corrections noted.

Examiner: M. Elve  
Group Art Unit: 1725  
Applicants: Robert Marc Clement et al.  
Serial No.: 09/184,186  
Filing Date: November 2, 1998  
Title: RELEASING OF GLAZING PANELS  
Attorney: D.H. Bliss  
Attorney Docket No. 2170.00013 (Urquhart)

Mailed via First Class U.S. Mail on January 11, 2002.